AMENDMENT UNDER 37 C.F.R. § 1.111

Application No.: 10/812,075

REMARKS

This Response, filed in reply to the Office Action dated July 16, 2007, is believed to be fully responsive to each point of objection and rejection raised therein. Accordingly, favorable reconsideration on the merits is respectfully requested.

Claims 1-112 are currently pending in the application, of which Claims 3-56, 59-62, 65-67, 69-71, 73, 74, 102 and 104-106 are withdrawn from consideration as being directed to nonelected inventions. Claims 1, 2, 57, 58, 63, 64, 68, 72, 75-101, 103 and 107-112 are rejected. Claims 1, 3-51, 97, 98, 102 and 107-111 are canceled. Claims 2, 52-96, 99-101, 103-106 and 112 are currently amended and entry of these amendments is respectfully requested. Support for these claim amendments can be found throughout the specification, and at least within the examples provided in the specification. Applicants respectfully request rejoinder of method Claims 104-106 and 112, should the corresponding generic linking claims be found allowable. Upon entry of these amendments, Claims 2, 52-96, 99-101, 103-106 and 112 will be pending in the Application.

Claim Rejections - 35 U.S.C. § 112

On page 3 of the Office Action, Claims 1, 2, 57, 58, 63, 64, 68, 72, 75-101, 103 and 107-112 are rejected under 35 U.S.C. § 112, first paragraph, for allegedly lacking enablement. The Office Action alleges that the specification, while being enabling for pharmaceutically acceptable salts, allegedly does not provide enablement for hydrates and solvates.

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Solely to advance prosecution, Applicants hereby voluntarily amend Claims 2, 52-96 and 99-101 to delete reference to solvates or hydrates. Applicants respectfully submit that the amendments to these claims attached herewith overcomes the rejection.

Claim Rejections - 35 U.S.C. § 102

On page 4 of the Office Action, Claims 1, 2, 75, 79, 90, 94, 98, 100, 103, 107 and 112 are rejected under 35 U.S.C. §102(b), as allegedly being anticipated by Anderson *et al.*, (United States Patent No. 7,101,878, published as WO 2000/020358A2 on April 13, 2000).

Applicants respectfully disagree with the rejection in view of the following remarks. The carbocyclic aryl group disclosed by Anderson $et\ al$. is not encompassed by the instant claims. Rather, new Claim 2 recites that R_1 is

"(vii) ... heterocyclyl substituted by ...

•C₁₋₅ alkyl substituted by ...

••carbocyclic aryl, ..."

The heterocyclyl may include furanyl and the C_{1-5} alkyl may include methyl, however, the carbocyclic aryl is defined in the last four paragraphs of Claim 2 as phenyl, naphthyl, or anthranyl, so that the particular fused ring of compound 71 of WO 2000/020358 does not fall within the scope of protection sought.

Thus, the fused ring structure of the compounds disclosed by Anderson *et al.* are not encompassed by the instant claims. Accordingly, Anderson *et al.* fail to teach each and every element of the claims, as is required to maintain a rejection under 35 U.S.C. §102(b).

Withdrawal of this rejection is therefore respectfully requested.

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On page 7 of the Office Action, the Claims 1, 2, 75-77, 79, 82-85, 88-90, 93, 94, 98, 100, 103, 107 and 112 are rejected under 35 U.S.C. § 102(b), as allegedly being anticipated by Wustrow *et al.*, (*Journal of Medicinal Chemistry*, 1998, 41(5):760-771).

Applicants respectfully submit that the amendments to the claims attached herewith overcome the rejection. Specifically, in the compounds disclosed by Wustrow *et al.*, the group corresponding to the R₂ group in the present claims is invariantly hydrogen. However, the claims as amended mandate that the pyrimidine nucleus is substituted, that is, that the R₂ group cannot be a hydrogen. Furthermore, the claims as amended restrict the L group to that of original formula (VII). For the above reasons, Wustrow *et al.* do not disclose a compound that is encompassed by the instant claims, and accordingly, fails to teach each and every element of the claims, as is required to maintain a rejection under 35 U.S.C. §102(b).

Withdrawal of this rejection is therefore respectfully requested.

On page 8 of the Office Action, Claims 1, 2, 75, 79, 90, 94, 98, 100, 103, 107 and 112 are rejected under 35 U.S.C. § 102(b), as allegedly being anticipated by Van Lommen *et al.* (US Pat. No. 5,607,949).

Applicants respectfully submit that the amendments to the claims attached herewith overcome the rejection. Specifically, in the compounds disclosed by Van Lommen *et al.*, the group corresponding to the R₂ group in the present claims is invariantly hydrogen. However, the claims as amended mandate that the pyrimidine nucleus is substituted, that is, that the R₂ group cannot be a hydrogen. Accordingly, Van Lommen *et al.* do not disclose a compound that is encompassed by the instant claims, and accordingly, fail to teach each and every element of the claims, as is required to maintain a rejection under 35 U.S.C. §102(b).

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Withdrawal of this rejection is therefore respectfully requested.

On page 10 of the Office Action, Claims 1, 2, 75, 76, 79, 82-85, 90, 94, 98, 100, 103, 107 and 112 under 35 U.S.C. § 102(e) as allegedly being anticipated by Ackerman *et al.* (US Pat. No. 7,012,077).

Applicants respectfully submit that the amendments to the claims attached herewith overcomes the rejection. Specifically, in the compounds disclosed by Ackerman *et al.*, the group corresponding to the R₂ group in the present claims is invariantly hydrogen. However, the claims as amended mandate that the pyrimidine nucleus is substituted, that is, that the R₂ group cannot be a hydrogen. Accordingly, Ackerman *et al.* do not disclose a compound that is encompassed by the instant claims, and accordingly, fail to teach each and every element of the claims, as is required to maintain a rejection under 35 U.S.C. §102(b).

Withdrawal of this rejection is therefore respectfully requested.

Improper Markush Rejection

On page 13 of the Office Action, Claims 1, 2, 57, 58, 63, 64, 68, 72, 75-101, 103 and 107-112 are rejected as allegedly being drawn to an improper Markush Group. The Office Action asserts that the claims lack unity of invention because of the alleged marked structural differences between species at a part of the molecule essential for utility.

Applicants respectfully submit that the amendments to the claims attached herewith overcome the rejection. Specifically, the claims have been amended such that they encompass only subject matter of elected Group III. Further, in light of the current claim amendments, Applicants respectfully submit that the claims as amended clearly possess unity of invention

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Accordingly, withdrawal of this rejection is respectfully requested.

Applicants respectfully request that the claims be examined with respect to the non-

elected species of elected Group III, pursuant to MPEP 803.02, in view of the claim amendments

attached herewith. Specifically, Claims 2, 52-96, 99-101, 103-106 and 112 encompass elected

Group III subject matter.

In view of the above, reconsideration and allowance of this application are now believed

to be in order, and such actions are hereby solicited. If any points remain in issue which the

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is

kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue

Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any

overpayments to said Deposit Account.

Respectfully submitted.

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